

SEVERE LOCAL STORMS, JULY, 1927

The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A more complete statement will appear in the Annual Report of the Chief of Bureau.

Place	Date	Time	Width of path ¹	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
			Yards					
Hahira, Ga.	3				\$150,000	Electrical	Cotton warehouse burned by lightning, destroying 300 bales of cotton; several persons stunned.	Official, U. S. Weather Bureau.
Suffolk, Mont. (8 miles, south of)	4	3 p. m.			6,000	Tornado	Buildings damaged; livestock killed; several persons injured.	Do.
Blaine County, Mont.	4	4 p. m.	880-1,760		12,500	Hail	Crops considerably damaged; sheep killed.	Do.
Edgemoor and Rossville sections, S. C.	4	P. m.			10,000	Rain, hail, and wind.	Heavy damage over 3 square miles.	Do.
Lewistown, Mont. (near)	4					Hail and cloudburst.	Complete loss of some crops.	Do.
Sumter, S. C.	4	P. m.			8,000	Rain, hail, and wind.	Character of damage not reported.	Do.
Kings Mountain, N. C. (near)	5		440			Heavy hail	Severe damage to cotton and corn, complete loss in places; path 3 miles long.	Do.
Marshall County, Kans.	6	3 p. m.	3 mi.		25,000	do	About 1,000 acres of corn ruined.	Do.
Clyde, Kans. (near)	6	4:30 p. m.				Violent hail and wind.	Damage chiefly to corn and fruit and wheat in shocks.	Do.
Henry County, Iowa	6	7 p. m.	220		80,000	Tornado	Damage chiefly to property other than crops.	Do.
De Kalb., Ogleby, Whiteside, and Rock Island Counties, Ill.	6				85,200	Wind, hail, and rain.	Overhead wires prostrated, many small buildings damaged or wrecked; crops injured; windows broken.	Do.
Fort Wayne, Ind.	6					High wind	Trees, telephone and telegraph lines blown down, small buildings damaged.	Do.
Iowa (southern)	6	P. m.				Wind and hail	Much damage to buildings, crops, and vegetation at various points.	Do.
Westmoreland, Butler, and Lawrence Counties, Pa.	6-7				100,000	Thunderstorm, wind, and rain.	Streets and sewers badly damaged; one house partly destroyed; heavy crop losses.	Do.
Wicomico County, Ind.	7			2	4,000	Thunderstorm	A barn and contents destroyed; another blown over; 2 mules killed; minor damage to other buildings.	Do.
Cooperton, Okla.	7		5 mi.			Hail	Cotton suffered greatly, some fields destroyed; other minor damage.	Do.
Sherman and Howard Counties, Nebr.	8	6 p. m.	3,520		5,500		Considerable damage to grains over path 15 miles long.	Do.
Lyon County, Iowa	8	7:15 p. m.				Tornado	No damage reported.	Do.
Jasper, Minn. (near)	8					Small tornado	Minor property damage.	Do.
Bureau and La Salle Counties, Ill.	9		1,760			Hail	Considerable crop damage over path 10 miles long.	Do.
Vernon County, Wis.	11	3 p. m.	1,760		10,000	Heavy hail	Buildings and crops damaged.	Do.
Juneau, Columbia, Dodge, and Washington Counties, Wis.	11	3-4 p. m.	1,760	1	320,000	Severe squall and probably small tornado.	Extensive crop and property damage over path 30 miles long; 22 persons injured; probably small tornado in central Dodge County.	Do.
Sioux Pass, Mont.	11	4-6 p. m.	3,520			Severe hail	Crops total loss over path 1 mile wide and 12 miles long.	Do.
Iowa (northeastern)	11	P. m.				Hail and wind	Considerable crop and property damage at various points.	Do.
Valparaiso, Ind. (near)	12	2:40-2:45 p. m.	30			Tornadoic wind	Considerable damage to trees, summer cottages, etc.	Do.
St. Croix, Pierce, and Dunn Counties, Wis.	12	6-6:30 p. m.		1	20,000	Severe squall with partially developed tornado.	Damage chiefly to barns, silos, trees, poles; crop loss slight.	Do.
Detroit, Mich., and vicinity.	12	P. m.		2	25,000	Thunderstorm and wind.	Trees and signs blown down; building under construction twisted.	Grand Rapids Press (Mich.).
Iowa (eastern)	12	do				Hail and wind	Crop damage 50 to 75 per cent in places; buildings and trees also damaged.	Official, U. S. Weather Bureau.
Algonac, Mich., and vicinity.	12	do				Thunderstorm	Storm very destructive to trees and wires.	Do.
Greeley, Colo.	13	4 p. m.	7-14 mi.		1,000,000	Hail	Wheat and sugar-beet crops and windows badly damaged or destroyed over an area of 150 square miles.	Do.
Gentry County, Mo. (southern).	13		4 mi.		30,000	Violent hail and wind.	Extensive crop damage over path 5 miles long.	Do.
Sanilac County, Mich.	13		33-100		50,000	Tornado	A number of buildings blown down, trees uprooted, some crops ruined, over path 15 miles long.	Do.
Ravenna, Nebr.	16	2 a. m.				Hail	Heavy crop damage in scattered areas.	Do.
Wabaunsee and Osage Counties, Kans., Harveyville to Burlingame.	16	4-4:30 p. m.	60	2	100,000	Tornado	Many farm houses and outbuildings demolished; trees uprooted; 12 persons injured; path 12 miles long.	Do.
Morris, Lyon, and Coffey Counties, Kans., Dunlap to Lebo.	16	4:15 p. m.	Few to 300	3	100,000	do	Damage chiefly to farm buildings and crops; extensive destruction in the vicinity of Lebo; path 28 miles long.	Do.
Clark County, Wis. (central).	16	5 p. m.	1,760		54,000	Wind and hail	Much damage to crops by hail; buildings and timber damaged by wind.	Do.
Kansas City, Kans. (southwest suburbs).	16	do	200	4	150,000	Tornado	Greatest damage in South Park, where 20 buildings were completely wrecked; 40 persons injured.	Do.
Chattanooga, Tenn.	16				13,500	Thunderstorm	About 2,000 telephones out of use; streets flooded; automobiles damaged.	Do.
Westchester County, N. Y. (southern).	16					Hail, wind, and rain.	Trees uprooted; garage roofs blown off; roads washed; cellars flooded.	Do.
Leesburg, Ala.	17				5,000	Heavy hail	Cotton and corn ruined in path.	Do.
Iowa (eastern)	18	P. m.				Hail and wind	Crops total loss in places; some damage to buildings and trees.	Do.
Smackover, Ark.	18	3:30-4 p. m.			60,000	Wind and rain	More than 60 derricks in oil fields blown down.	Shreveport Times (La.).
Alexander, Union, and Jackson Counties, Ill.	19	3-4 p. m.	4 mi.		100,000	Hail	Damage principally to corn and fruit; minor damage to buildings; path 25 miles.	Official, U. S. Weather Bureau.
Glendive, Mont.	19	7:30 p. m.			25,000	Tornado	No damage reported.	Do.
Arizona (north-central and southwestern).	19					Thunderstorms, hail, and wind.	Crops injured; windows and greenhouses damaged at various points.	Do.
Mulberry Grove, Ill.	20				30,000	Hail	Windows broken, roofs pierced; orchards and crops damaged.	Do.
Monroe and La Crosse Counties, Wis.	21	1-3 a. m.	880-5,280		100,000	Heavy hail and rain.	Extensive crop damage; bridges and roads washed.	Do.
Warren County, Ill. (southern).	21	12:30 p. m.	4 mi.		145,000	Heavy hail	Field crops total loss; other property damaged over path 25 miles long.	Do.

¹ "Mi" signifies miles instead of yards.

Place	Date	Time	Width of path	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Morrellville and Estherville and vicinity, Pa.	21	P. m.	Yards			Heavy hail	Numerous windows broken; considerable damage to growing crops.	Official, U. S. Weather Bureau.
Rock and Walworth Counties, Wis.	21				\$10,000	do.	Tobacco and corn crops severely damaged.	Do.
Hall, N. Y.	23		1,760		20,000	do.	Fruits badly injured; cabbage and peas totally ruined; other crops damaged; path 2½ miles long.	Do.
Nodaway County, Mo.	24	5-6 p. m.			70,000	Severe hail, wind, and rain.	10,000 acres of crops damaged; 2,000 total loss.	Do.
Iowa (western).	24	P. m.				Hail and wind.	Extensive crop losses.	Do.
Emporia, Kans. (near)	25	3 p. m.	12 mi.		50,000	Heavy hail.	Crops devastated over area 12 miles square; 2,500 panes of glass broken.	Do.
Delmar, N. Y., and vicinity.	27	2 p. m.	880		6,000	do.	Considerable damage to truck gardens and greenhouses; path 2¼ miles long.	Do.
Pigeon Falls, Wis.	27	3:30 p. m.	1-3 mi.		10,000	Hail and electrical.	Much damage to crops; large barn destroyed by lightning.	Do.
Iowa (northern).	27	P. m.				Hail and wind.	Many thousands of dollars damage to crops and buildings.	Do.
Port Huron, Mich. (near)	27				15,000	Electrical.	2 large barns and contents, including livestock, burned.	Do.
St. Paul and Minneapolis, Minn.	27					Severe wind.	A number of small buildings damaged; telephone service impaired; several persons injured.	Do.
Arcadia, Wis.	28	4 p. m.	880		9,000	High wind.	Damage chiefly to crops.	Do.
Caldwell, Kans., and vicinity.	28	4:40 p. m.				Small tornado.	Many trees torn up; autos damaged; several buildings unroofed; electric service demoralized.	The Wichita Eagle (Kans.).
Monrovia, Kans., to Kansas City, Mo.	28	4:45 p. m.			25,000	Tornado.	4 small houses wrecked, 16 others more or less damaged.	Official, U. S. Weather Bureau.
Libertyville, Iowa (near)	28	6 p. m.				do.	Some buildings wrecked.	Do.
Clinton, N. C. (8 miles south of)	28		3,520			Heavy hail.	Severe damage to crops; pigs and poultry killed; path 8 miles long.	Do.
Iowa (northern).	28	P. m.				Hail and wind.	Crops badly injured; buildings damaged.	Do.
Whitney County, Ind.	28	do.			18,500	Wind.	Character of damage not reported.	Do.
Chicago, Ill. (near)	28			27		Wind squall.	Motor boat wrecked, causing loss of 27 lives.	Do.
Isidore, N. Mex.	30	8-11 p. m.	5 mi.			High wind.	Roofs blown off, trees uprooted; windows broken; windmills blown down.	Do.
Logan, N. Mex.	30	10 p. m.	5 mi.		10,000	Tornadic wind and hail.	Crops, buildings, and windmills damaged.	Do.
South Dakota (southwestern).	30		2-8 mi.		80,000	Hail and wind.	Crops a total loss in many places; path 50 miles long.	Do.
Crawford County, Kans. (northwest).	31	6 p. m.	2-3 mi.			Heavy hail.	Considerable damage to property over an area several miles square.	Do.
Wuakomis, Okla.	31	7-7:30 p. m.	4 mi.		10,000	Hail.	Considerable damage to property other than crops.	Do.
Massachusetts (southeastern).	31	7:30 p. m.		1	100,000	Thunderstorm and tornadic wind.	Buildings and trees blown down; communication cut off; much damage by tornadic wind at Rehoboth.	Do.
Adams County, Wash.	31	P. m.				Wind and hail.	Standing wheat sustained a loss of 25 per cent.	Do.
St. John, Wash. (east of)	31	do.			9,000	do.	More than 350 acres of wheat damaged.	Do.

STORMS AND WEATHER WARNINGS

WASHINGTON FORECAST DISTRICT

The only storm warnings issued during the month were in connection with a disturbance of considerable intensity that moved northwestward from the vicinity of Bermuda and approached the New Jersey coast during the 2d, after which it diminished in intensity and moved northeastward, its center passing near Nantucket during the 3d. Northeast warnings were displayed in advance of this disturbance from Portsmouth, N. H., to Delaware Breakwater, and small-craft warnings south of Delaware Breakwater to Cape Hatteras. The highest wind velocity reported was 48 miles an hour from the northeast at Nantucket. No other station reported a verifying velocity.

Except for small-craft warnings from Cape Hatteras to Delaware Breakwater on the 4th, no storm or small-craft warnings were issued after the 2d.

Frost warnings were issued for the cranberry bogs of New Jersey and Massachusetts and for the interior of northern New England and the northern portion of eastern New York on the 4th. No frost was reported from any regular reporting station, however, the morning of the 5th.—*C. L. Mitchell.*

CHICAGO FORECAST DISTRICT

There was nothing unusual in the weather conditions in the Chicago forecast district during the month of July. The temperature averaged somewhat below the normal, and the rainfall, which was mainly in the form of thunderstorms, was rather irregularly distributed.

Warnings for frost on low ground were issued on July 31 for North Dakota and northwestern Minnesota for the ensuing night, and for the cranberry marshes of Wisconsin for the night following; that is, the night of August 1-2. No frosts occurred on the first night, but they appeared to be general in the cranberry marshes on the second.

Small-craft warnings were ordered for the Great Lakes on a few occasions; and any strong winds that occurred were in the form of local squalls.

The only casualty, as far as known, on the Lakes was the capsizing of the small excursion boat *Favorite* on the afternoon of July 28, close to the near-north shore of Chicago, in which 27 lives were lost. The evidence brought out at the inquiry was that the boat was top-heavy and, as the squall broke, all the passengers rushed to the side of the boat away from the wind and rain; and the boat, being out of balance, toppled over. The squall lasted only five minutes, from 2:24 p. m. to 2:29 p. m. (ninetieth meridian time), and attained a maximum velocity of 49 miles an hour at the station on the municipal pier maintained by the water department of the city of Chicago, about 1 mile from the place where the catastrophe occurred. The wind was light to moderate before and after the squall, the total wind movement being only 15 miles in that hour. Thunderstorms had been predicted not only for Chicago and vicinity, but also for Lake Michigan; but no warnings of any kind had been ordered. The wreck of the *Favorite* was the only casualty which occurred, although a vast number of other vessels were exposed to the squall.

A special wind and weather forecast was issued on July 23 for the route of the Chicago-Mackinac Island cruising race which had its start in Chicago on the after-